Domestic ELV Launch Services Ground Rules/Policy
Any domestic Expendable Launch Vehicles (ELV) proposed for this AO will be procured and managed by NASA Launch Services Program (LSP) via the NASA Launch Services (NLS) contract. Under the provisions of this AO, domestic launch services cannot be procured directly by the PI/proposed team, nor can a partner contribute a domestic launch service.

Under the provisions of the NLS Contract, the launch service includes the launch vehicle (LV) and associated standard services, non-standard services (mission unique options), all engineering and analysis, and minimum performance standards. LSP also provides technical management of the launch service, technical insight into the LV production/test, coordinates and approves mission-specific integration activities, mission unique LV hardware/software development, provides payload-processing accommodations, and manages the launch campaign/countdown.

Proposers should seek to be compatible with available launch services in either of the ELV and EELV families. Upon mission selection, LSP via the NLS Contract will competitively select a launch service provider for the mission, based on customer requirements. Accordingly, assumption of a specific medium/EELV LV configuration as part of the AO proposal will not guarantee that the proposed LV configuration will be selected for award of a Launch Service Task Order, unless there is firm technical rationale for sole source. This rationale should be clearly explained in the proposal.

All NASA-procured launch services are to be consistent with NASA Policy Directive (NPD) 8610.7, NASA Launch Services Risk Mitigation Policy. Launch services acquired by NASA will be managed in accordance with NPD 8610.23, Technical Oversight of Expendable Launch Vehicle (ELV) Launch Services. These NPD's can be accessed through the web address: http://nodis3.gsfc.nasa.gov/.

Dual manifested or secondary payloads on domestic LVs will not be considered under the cognizance of this AO.

Foreign Launch Vehicles
Launch services may also be proposed at no cost to NASA as part of a teaming proposal with a non-U.S. partner. Such launch services must be consistent with the U.S. Space Transportation Policy, Section 5A and NASA Policy Directive (NPD) 8610.7, NASA Launch Services Risk Mitigation Policy for NASA-Owned or NASA-Sponsored Payloads (both in the DPL). Whether the mission is proposed for launch as a primary or secondary payload on a contributed ELV, the proposer must identify the opportunity and provide evidence in the proposal that the launch service provider agrees to manifest the investigation should the proposal be selected and confirmed for flight.

It is the responsibility of the proposer to find an organization that will contribute a launch if a contributed launch is part of the proposal. The demonstrated reliability and the resultant probability of mission success will be evaluated as described above. The use of non-U.S.

provided launch services may be proposed but must also meet the additional constraints and requirements of Sections 5.9.3 and 5.10.

Launch Vehicle Information/Configuration/Performance

The NASA Launch Services Program (LSP) has developed an on-line payload planner's guide for NASA missions. This web site contains information relevant to NASA-procured launch services. The information provided includes all NLS LV configurations, standard/non-standards services that are available as well as payload fairing envelopes and environments. This planning tool can be found at the following web address: https://elvppg.ksc.nasa.gov. Access to this site requires a self-determined password, which is activated by the site administrator at KSC. A user can request access/password activation by going to the site and following the directions provided on the log-in screen as well as providing the required information. Access to this web site can typically be activated within 24-48 hours during the week. For questions, contact LSP/ELV. This web site contains no information on foreign LVs.

The Offerors should select the minimum launch service class that meets their requirements including adequate performance margins. As a reference tool, the LSP has developed an on-line tool to assist in determining LV performance. This tool is publicly accessible at the following web address: http://elvperf.ksc.nasa.gov. The performance information reflects figures consistent with the NLS Contractual commitments. All of these figures reflect separated Spacecraft mass and each have associated groundrules/assumptions (including the adapter-type). For variations from what is found on-line, contact LSP for an assessment. The Offeror should specifically state in the proposal the launch service class to meet their requirements for this mission. This web site contains no information on foreign LVs.

Nuclear Launch Approval

For missions using nuclear materials, the LSP is responsible for managing the development, coordination and technical content of the LV Databooks. The costs for the mission unique databook(s) and other LV-related items (e.g., range requirements for the LV, FTS system, event sequence diagrams, etc.) have been accounted for in the noted nuclear missions cost figures. These costs are only applicable for missions that are using nuclear materials on-board.

Launch Service Costs

Table 1 provides Launch Service cost figures for each of the given Launch Service classes. Based on the Offeror's selection of the individual ELV configuration(s) that meet their technical requirements, the Offeror should use the respective Launch Service class dollar figures in the overall mission cost. Cost risk within each Launch Service Class should be considered constant for purposes of this AO (i.e, proposals should not attempt to distinguish differences in cost between Delta and Atlas within a respective class).

Funding estimates are stated in real-year dollars and assume a launch in **December 2012.** For cost estimate for launches in years other than 2012, please contact LSP for a different estimate. The funding profiles provide for the launch service, nominal allocation for mission unique launch vehicle modifications/services, mission integration, launch site payload processing, and the LV-related tasks for the Nuclear Launch Approval process.

The estimated costs for Nuclear Launch Approval covered in these figures include items such as LV Databooks, Launch site accommodations for nuclear materials, material handling/logistics by DOE, and Range Safety requirements associated with the LV.

Evaluation Criteria

Attachment 1 shows the Evaluation checklist that will be used as a guide for the evaluators during the proposal evaluation phase. This checklist should give the offerors an indication of the types of information that are expected to be contained in the proposals.

NASA Launch Services Program Point of Contact for Additional Information

Additional information including, but not limited to, availability of smaller or larger launch vehicles, performance quotes, mission integration inquiries and costs may be obtained from:

Norman M. Beck, Jr
Advanced Planning Manager
NASA Launch Services Program
Code VA-A
Kennedy Space Center, FL 32899

Phone: 321-867-6348
Email: Norman.M.Beck@nasa.gov

Attachment 1

AO Proposal Evaluations
KSC ELV Launch Services Evaluation Input

Proposal Name: _____

Proposal #: _____

Evaluator POC: _____

Phone: _____

Email: _____

Launch Service Technical Evaluation:

Overall Assessment: - Given the ground rules in the AO, is the proposed launch vehicle (LV) concept feasible for this application? (☐Yes or ☐ No)

Comments:_____

_____

LV Performance: Area of concern (☐Yes or ☐ No)

Proposed LV configuration: _____

Proposed Launch Date: _____

Launch Period (MM/DD/YYYY to MM/DD/YYYY): _____/____/_____ to _____/____/_____

Launch Window (On any given day of the launch period Minutes:Seconds): _____ : _____

Orbit requirements: Apogee: _____ km Perigee: _____ km Inclination: _____deg.

High Energy requirements: C_3: _____ km^2/sec^2 DLA: _____deg RLA: _____deg

Proposed LV Performance: _____

Mass (including reserves) Dry Mass: _____ kg Wet Mass: _____ kg

Dry Mass Margin: _____ kg _____ %

Wet Mass Margin _____ kg _____ %

Formulas:
Mass Margin kg = LV Performance – S/C Mass (including reserves)
Mass Margin % = [(Mass Margin kg)/ S/C Mass (including reserves) kg] X 100

LV Performance Comments/issues/concerns:

_____

_____

Launch Service Cost Assessment: Area of concern (☐Yes or ☐ No)

Is Launch Service cost profile consistent with AO LV Appendix? (☐Yes or ☐ No)

Is there additional funding for any mission unique modifications/services? (☐Yes or ☐ No)

LV Integration: Area of concern (☐Yes or ☐ No)

Does the proposer have experience in LV integration? (☐Yes or ☐ No)

Attachment 1

AO Proposal Evaluations
KSC ELV Launch Services Evaluation Input

LV to Spacecraft Interface: Area of concern (☐Yes or ☐ No)

Proposed Payload Fairing (PLF) _____

Spacecraft (S/C) Dimensions: Radial:_____ m Height _____ m

Any intrusions outside of the PLF usable dynamic volume? (☐Yes or ☐ No)

Mechanical Interface:

Standard Adapter: _____ Custom Adaptor: _____

Electrical Interface:

Standard _____ Pin(s) Connector(s): (☐Yes or ☐ No)

Mission Unique requirements:

Instrument T-0 GN_2 Purge: (☐Yes or ☐ No)

T-0 S/C Battery Cooling: (☐Yes or ☐ No)

Planetary Protection Requirements: (☐Yes or ☐ No)

Contamination Control Requirements: PLF: (☐Yes or ☐ No) LV adapter: (☐Yes or ☐ No)

Cleanliness Level: _____ other: _____

Unique Facility Requirements: (☐Yes or ☐ No)

Pad: _____

S/C Processing Facility: _____

S/C Environmental Test Plans

Environmental Test Plan/Flow described: (☐Yes or ☐ No)

Test Levels provided: (☐Yes or ☐ No)

Test Schedule provided: (☐Yes or ☐ No)

Comments/issues/concerns: _____
_____

Spacecraft Schedule: Area of concern (☐Yes or ☐ No)

Adequate timing of:
- Launch Service Integration Start Time: (☐Yes or ☐ No)
- S/C Environmental Test Program: (☐Yes or ☐ No)
- Delivery of Verified S/C Model: (☐Yes or ☐ No)
- S/C ship date: (☐Yes or ☐ No)
- S/C to LV integrated Operations: (☐Yes or ☐ No)

Missions with Radiological material Area of concern (☐Yes or ☐ No)

List the Radiological Sources: _____

Are unique facilities required to store/process the Radiological Sources? (☐Yes or ☐ No)

Any LV modifications required for additional safety or Launch approval? (☐Yes or ☐ No)